Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 14 as with the following amended paragraph:

The history of intraocular lens implantation dates back to 1949 when an initial attempt to replace a diseased lens with an artificial one resulted in a poor outcome with an error of –24.0 diopter (D). Nevertheless, this set the stage for continuous advances in the field of ophthalmology, leading to the common practice of "standard-of-care" lens implantation we see today. The technology of cataract surgery has witnessed an impressive development through constant innovation of surgical technique and instrumentation, lens material and design, and just as importantly, ever improving methodology for calculating and predicting the power of the lens implant necessary to achieve desired postoperative refractive outcome. In the 1960s Fyodorov was the first scientist to publish a formula for predicting the power of the intraocular lenses (IOLs) based on geometrical optics incorporating two very important preoperative anatomical parameters of the ocular system – the A-scan derived axial length of the eye and keratometry measurements of the cornea. ~~A-scan derived axial length of the eye and keratometry measurements of the cornea,~~ Feodorov S N, Kolinko A L[.], Estimation of optical power of the intraocular lens. Vestn. Oftamol; 80(4):27-31 (1967). Colenbrander published the first formula written in English in 1973. Colenbrander, Calculation of the Power of an Iris-Clip Lens for Distance Vision, Br. J. Ophthal. 57:735-40 (1973). Many further improvements followed these pioneering efforts. Binkhorst described a derivative formula in the 1970s. Binkhorst R D., The optical design of intraocular lens implants. Ophthalmic Surg 1975;6(3):17-31. Binkhorst, Power of the Pre-Pupillary Pseudoshakos, B.J.O. 56:332-37, (1972)). Modifications of the Colenbrander formula were implemented by Dr. Hoffer with further improvement of accuracy across the different axial length ranges. Hoffer K J. Mathematics and computers in intraocular lens calculation. Am Intra-Ocular Implant Soc J 1975; 1(1):4-5). In 1980, Sanders, Retzlaff and Kraff derived a regression formula which has sustained many subsequent updates and modifications. Further refinements were achieved with the second generation formulas which

had better precision over a wider range of anatomic parameters, but all used axial length and corneal curvature (keratometry) as the main predictive variable in their models. Sanders, J. Retzlaff & M. C. Kraff, Comparison of the SRK II Formula and the Other Second Generation Formulas, J. Cataract & Refractive Surg. 14(3):136-41 (1988). Olsen, T., Theoretical Approach to IOL Calculation Using Gaussian Optics, J. Cataract & Refractive Surg. 13:141-45 (1987). Holladay, T. C. Praeger, T. Y. Chandler & K. H. Musgrove, A Three-Party System for Refining Intraocular Lens Power Calculations, J. Cataract & Refractive Surg. 14:17-24 (1988). J. T. Thompson, A. E. Maumenee & C. C. Baker, A New Posterior Chamber Intraocular Lens Formula for Axial Myopes, Ophthal. 91:484-88 (1984). Various improvements in making preoperative anatomic-based estimates of IOL power have been described in the patent literature (e.g., U.S. Patents Nos. 6,634,751, 5,968,095, and 5,282,852).